1 Miles instead of yards.

### MONTHLY WEATHER REVIEW

#### SEVERE LOCAL STORMS, JULY 1935

(Compiled by Mary O. Souder; authorities, U.S. Weather Bureau officials)

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the Annual Report of the Chief of Bureau]

·			_		Report of th	ne Chief of Bureau]	
Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Wisconsin, western and north-	1-2					Heavy rain	Number of washouts of railroad tracks and highways.
western counties.  Johnston (near), S. C.  Des Moines, Iowa, and vicinity.	$\frac{2}{2}$	P. m			\$1,200	Electrical Torrential rains	Tenant house, garage, and automobile destroyed.  Over 50 square blocks of Valley Junction, suburb of Des Moines, flooded by Walnut Creek; Jordan Creek caused thousands of dollars' damage as it spread through the grounds of the Penn-Dixie
Grand Rapids, Mich	3	 	 		 	Excessive rain	in places curb deep in streets; section of railroad track washed out:
Polk and Norman Counties, Minn.	3	12:30-1 p. m		3	100,000	Tornado	crops and gardeus ruined; loss of several thousand dollars.  Storm apparently originated in Dunn County, N. Dak.; 8 persons injured; 33 barns, many outbuildings, silos, and windmills demolished or badly damaged; windows broken, trees upproted.
Indianapolis, Ind	4	2;42-7:16 a. m., 2;43-8:12 p. m.				2 thunderstorms and excessive rain.	poles down; loss to crops; path 45 miles long.  Lightning damaged power lines and caused several fires; many basements flooded; second storm in p. m. was accompanied by heavy rains and squalls which again flooded streets and cellars; some damage by blowing down signs and branches of trees.
Key West, Fla	4	7-8:25 p. m	ı		1	Electrical	Transformer struck by lightning; business sections in darkness for an hour; considerable telephone trouble.
Butler, Okla. (10 miles west)	4	10:30 p. m	14		10,000	Wind	Farm buildings and machinery wrecked to extent of \$8,000; crop loss, \$2,000.
Hunter's Station, Wyo Knoxville, Tenn	4	4 a. m	16		4, 500	Heavy hail Thunderstorm	Path of storm 12 miles long; no details.  Trees and power lines leveled.
Red Wing, Minn	5	4 a. m		0	900	Small tornado	Trees uprooted; fruit knocked off; buildings damaged; few wires down.
Chicago, Ill	5	11:40 a. m.→ 1:25 p. m.				Thunder squall and heavy rain.	Wind of 51 miles per hour recorded; damage to trees and power lines; number of small craft capsized in Lake Michigan.
Canutillo, TexLa Union, N. Mex.	5	2:30 p. m	11	- <b>-</b>	45,000	Hail	Crops, in area 1 by 4 miles, total loss.
Cambria and Christianburg, Va.	5	5:30-7:30 p. m	880	- <b>-</b>	}	Cyclonic winds, electrical.	Large building unroofed and debris carried 400 feet; roof of church carried some distance; feed water-damaged; small crop loss; all members of one family stunned by lightning.
Fairchild, Wis		5:45 p. m		0	12,000	Tornado	2 barns, a nouse, and filing station completely destroyed; much damage to power station; small damage to other buildings; path 3 miles long.
La Crosse County, WisEdgar, Marsthon, and Wausau. Wis., and vicinity.	5 5	6:30 p. m 7:15-7:30 p. m_	100-167	0	6,000 125,000	Squall Tornado	Number of farm buildings wrecked.  Started 10 miles west of Edgar, traveled eastward 4 miles wrecking 6 barns and a schoolhouse; storm lifted and skipped about 12 miles, reaching Marathon about 7:30, continued eastward through a portion of Wausau with damage amounting to \$30,000 in Wausau alone; path 25 miles long.
Opelika, Ala., 3 miles south	5			<b>-</b>		Heavy rain	A trestle and 30 to 40 feet of track of the Western Railway of Alabama
Scranton, Pa	6	P. m		]		Thundersquall	washed out. Rainfall 1.68 inches; many streets flooded interrupting trolley service;
Danbury, ConnRhode Island.	6					Thunderstorm	in Waterbury and Danbury over main thoroughfare to New York, water stood 2 feet deep; Veteran's Hospital at Newington struck by
Ithaca, N. Y	6–8			11	4,000,000	Heavy rain	lightning; storm general north of New Haven.  4 railroads running into Ithaca had tracks washed out; main automobile roads severely damlaged; bridges and culverts were out in all directions; property damlaged; crop loss; 11 persons drowned.
Todd County, S. DakGlen Lyn, Va	7	5-7 p. m 7:15-10 p. m		l	30, 000 125, 000	Wind and rain Wind, electrical, and rain.	Damage to roads, bridges, and fences, \$10,000; loss to crops, \$20,000. Loss estimated for Electric Power Co. only; small loss to crops.
Rochester, N. Y	7	P. m	·	<b></b>	500, 000	Thunderstorm	Storm one of the most severe ever recorded in this section, both electrically and as to the amount of rainfall in a short period, 1.98 inches falling in 30 minutes; damage chiefly due to backing up of sewers and flooding cellars.
Oswego County, N. Y., southern portion.	7				25, 000	Electrical, excessive rain.	2 barns burned with \$25,000 loss; much damage from heavy rain in vicinity of Fulton; lightning caused 3 fires; cellars flooded and drives washed out; 5 miles south of Phoenix, 100 feet of N. Y. C. R. R. washed out.
New York State, south-central portion.	7-8			40	25, 000, 000	Torrential rain and flood.	Washed our Heaviest rainfall occurred over an area extending from Keuka Lake to central Chenango County, where 9 to over 10 inches fell during the 2-day period. The unprecedented rainfall brought many of the streams to flood peaks so sudden and high that people, caught practically unaware, were trapped in houses, automobiles, and cottages on the shores of the Finger Lakes; on July 8, creeks, usually insignificant in summer, discharged water many feet deep through the centers of Urbana, Hammondsport, Watkins Glen, Montour Falls, Myers, Trumansburg. Marathon, Lisle, Willett, and other towns; trees, buildings and other debris jammed bridges and cul-
					:		verts; streams were diverted; roads washed out; houses demolished; fields deeply gullied or buried under gravel; railroads washed out and bridges carried away; great damage through innundation; thousands of acres of highly productive muck and bottom lands submerged; residential and business sections in Hornell, Binghamton, Ithaca, Bath, and many other towns flooded; loss to State highways approximately \$3,000,000. of which amount \$1,750,000 was damage to bridges; damage to roads greater; 540 bridges of a span greater than 5 feet to be replaced; loss to railroads, exclusive of business, in excess of \$1,250,000; heavy damage to public utilities, Watkins Glen, Enfield, and Taughannock Falls; property damage in millions.
Bloom, Kans., vicinity of Valley County, Mont Charleston, S. C	8			0 2	150	Tornado	Damage to outbuildings. Many persons injured.
	8			<del>-</del>		Heavy rain squall	This very heavy rain squall broke all July records for heavy precipitation for 30 minutes in this section.
Elkins, W. Va	8					Heavy rain	3.7 inches of rain fell in 2½ hours; sawer system inadequate; in many places water 2 to 3 inches deep, breaking all records for heavy rain- fall in short periods.
Norfolk, Va	9	P. m			15, 000	Thunderstorm	Man received a severe burn on the hand resulting from lightning striking a knife he held; traffic delayed; electric service disrupted in many sections of the city; Smith-Douglas fertilizer plant damaged to the extent of \$15,000.
Clinton (near), Minn	10	1 p. m	<b></b>			Hail	

## MONTHLY WEATHER REVIEW

### SEVERE LOCAL STORMS, JULY 1935—Continued

Minn.   Pittston - Wilkes - Barre, Pa., and vicinity.   10	Width or path, yards	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Minn. Pittston - Wilkes - Barre, Pa., and vicinity.  Gary, Minn				5, 000	Wind and rain	Basements flooded; highways damaged; trees blown down; loss t
Same					Flood	growing crops; wind damage \$500, from heavy rain \$4,500. Some 40 families forced from their homes in the southern portion; crop destroyed in lowlands along the Susquehanna River; Kirby Par
Prondhyem, Minn			0	800	Tornado	at Wilkes-Barre Hooded.  Several garages, small buildings, and lumber sheds demolished; tree
Phlox, Wis				5, 000	Tornado and heavy	uprooted.  Barns, silos, windmills, and small buildings wrecked or damage
Newberry (near), S. C	Ì				rain.	Barns, silos, windmills, and small buildings wrecked or damage considerably; haystacks blown away; loss to crops; poultry killed path 4 miles long.
Casper, Ark			0	15, 000	Tornado and heavy hail.	Several barns and smaller buildings damaged; boy suffered a broke leg.
Providence, R. I., and vicinity   19   12   130 p. m   19   150 p. m   19   150 p. m   19   150 p. m   19   150 p. m			9	110, 775	ElectricalFlood	Storehouse containing wheat destroyed.  Owing to heavy local downpours in the vicinity of Granada and Wo Creeks, flood waters resulted, 9 persons being drowned; considerab property damaged; 10 to 12 inches of rain fell.
200   201	100	100 1 1	0	75, 000 500	Tornado	3 persons injured; property damaged. Hail damage slight; damage from wind \$500; path 5 miles long. Buildings damaged; plate glass windows broken; trees uprooted.
Missouri (central portion of State), west to east.       12         Oryden-Cortland, N. Y       12         Columbia (near), S. C       13       4 p. m         Fanners Lake, Minn., vicinity of.       14       2:30 p. m         Oelwein, Iowa, vicinity of.       14       p. m         Bouse (near), Ariz       16       16         Bouse (near), Min       16       17         Havre, Mont., and vicinity       17       6:15 p. m         Philadelphia, N. Y       19       3:40-8:50         Scranton, Pa., vicinity of       19       6:20 p. m         Whitestown, Ind       19       19       6:20 p. m         Whitestown, Ind       19       1:30 p. m       19         Toledo, Ohio, and vicinity       19       1:30 p. m       10         Clear Spring, Md       20       3:45 p. m         Spink, Walworth, Edmunds and Potter Counties, S. Dak. Goshen, Ind       20       5-5:30 p. m         Spink, Walworth, Edmunds and Potter Counties, S. Dak. Goshen, Ind       20       5-5:30 p. m         Elkader (near), Iowa       21       21         Interlaken, N. Y       21       21         Spink, Clark, and Codington Counties, S. Dak. Goshen, Ind       22       22         Toles Nolines, I	880	880	Õ		Tornado	Buildings damaged; plate glass windows broken; trees uprooted. Property destroyed.
Missouri (central portion of State), west to east.       12         Oryden-Cortland, N. Y       12         Columbia (near), S. C       13       4 p. m         Fanners Lake, Minn., vicinity of.       14       2:30 p. m         Oelwein, Iowa, vicinity of.       14       p. m         Bouse (near), Ariz       16       16         Bouse (near), Min       16       17         Havre, Mont., and vicinity       17       6:15 p. m         Philadelphia, N. Y       19       3:40-8:50         Scranton, Pa., vicinity of       19       6:20 p. m         Whitestown, Ind       19       19       6:20 p. m         Whitestown, Ind       19       1:30 p. m       19         Toledo, Ohio, and vicinity       19       1:30 p. m       10         Clear Spring, Md       20       3:45 p. m         Spink, Walworth, Edmunds and Potter Counties, S. Dak. Goshen, Ind       20       5-5:30 p. m         Spink, Walworth, Edmunds and Potter Counties, S. Dak. Goshen, Ind       20       5-5:30 p. m         Elkader (near), Iowa       21       21         Interlaken, N. Y       21       21         Spink, Clark, and Codington Counties, S. Dak. Goshen, Ind       22       22         Toles Nolines, I	p. m.	12		10,000	Thundersquall	Property damaged.
Columbia (near), S. C		·•		37, 000	Wind, heavy rain, electrical.	Damage reported at Lexington, Concordia, Sedalia, Columbia, Jeffe son City, Montogomery City, New Haven, St. Charles and S Louis; damage at Jefferson City, \$25,000; at Montgomery Cit
Panners Lake, Minn., vicinity of			0		Small tornado	\$10,000, and at St. Louis, \$2,000. Silo and 3 barns wrecked; apple and shade trees uprooted; telepho.
Providence   Pro		<b></b>		1,000	Electrical	lines disrupted. Lightning struck a mule shed killing 2 mules; building nearby co
Delwein, Iowa, vicinity of   14   p. m   15   p. m   16   p. m   17   p. m   17   p. m   17   p. m   17   p. m   19   p. m   17   p. m   19   p. m   17   p. m   19   p. m					Wind	faining harness and feed ignited and burned.  60-foot power pole blown down; branches of trees broken off; gra lodged.
Napoleon, Ohio			1		Tornadic wind, rain, and hail.	Several farm buildings completely destroyed; considerable crop los
Napoleon, Ohio	1 2	1 2	- <b>-</b>	15, 000	Heavy hail	Small grains, corn, orchards, and gardens severely damaged.  1 person injured; 4 houses damaged.
Providence, R. I., and vicinity.  Providence, R. I., and vicinity.  Scranton, Pa., vicinity of					Hail, wind, and rain.	Near Kasoag a barn was blown from its foundation; in the vicinity Pulaski a car was blown from the road; at New Haven thousands dollars' damage to buildings and loss to crops; damage from hail South New Haven and Volney; many trees blown down.
Providence, R. I., and vicinity					Hail and wind Wind and rain	Storm severe, causing much loss to all crops. Considerable damage to small grains.
Providence, R. I., and vicinity 19 3:40-8:50 Scranton, Pa., vicinity of 19 6:10-8 p. New Haven, Conn 19 6:20 p. n Whitestown, Ind 19 19 19 19 19 19 19 19 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10			2	10,000	Hail and wind Small tornado	20,000 to 30,000 acres of crops lost; property damaged; poultry killed. Storm first noted by members of the Leslie Drake farmstead, w
Scranton, Pa., vicinity of   19   6:10-8 p. New Haven, Conn   19   6:20 p. n						were apprised of its approach by a terrible whistling noise and a funnel cloud. Before they could recover from their astonishmen the storm had "sideswiped" their buildings and passed on; a loade hay wagon was overturned, the hay whisked away; part of the met froof of the barn was torn loose; the funnel cloud passed on to the Earl Drake farm about 500 yards away and on the opposite side the highway; 5 telephone poles were snapped off; granary and storbarn and farmhouse completely demolished; Mrs. Drake who w [il], 2 daughters and a child of 7, were in Mrs. Drake's room; Mr Drake, whose skull was fractured, died; her daughter, 19, sustained broken back and other injuries, dying 2 days later; other daught suffered from bruises and shock and the child had a broken rib ar numerous bruises; path of storm 5 miles long.
Whitestown, Ind	o. m				Thunderstorm and hail.	About 20 buildings in the State struck by lightning and 3 men on the municipal golf course stunned.
Toledo, Ohio, and vicinity	n	ĺ	ŀ		Thundersquall Electrical	4 houses struck by lightning. No section of this State spared from the result of this storm; 2 men Wallingford, 12 homes, and 3 churches struck by lightning, 6 fir resulting; light and telephone service disrupted.
Havre, Mont., and vicinity			8		Heavy hall Thunderstorm	Damage to crops.
Spink, Walworth, Edmunds and Potter Counties, S. Dak. Goshen, Ind.	1	15			Local squalls Hail, wind, and rain.	Damage to trees and wires; amount not estimated.
and Potter Counties, S. Dak.  Goshen, Ind.  Des Moines, Iowa			l	10,000	Ball lightning, rain	damaged.
Elkader (near), Iowa 21 Artesia, N. Mex 21 Interlaken, N. Y 21 Spink, Clark, and Codington Counties, S. Dak. Hamden and North Haven, Conn. Des Moines, Iowa 23 Hollis, Okla., 8 miles north 23 Itheral, Kans., vicinity of 23 Pymosa, Franklin and Benton, Iowa. Richland, Iowa 23 Richland, Iowa 24 Pp. m. 26  27 p. m. 27  28  29  20  20  21  21  22  22  23  24  25  26  28  28  29  29  20  20  20  21  22  23  24  25  26  27  28  29  29  20  20  21  21  22  23  24  25  26  27  28  28  29  29  20  20  20  20  20  20  20  20	m	1	t	1	Wind and hail	2:12 inches of rainfall recorded in 25 minutes.  Farm bulldings wrecked; loss to crops; most of damage in Walwor County.
Spink, Clark, and Codington Counties, S. Dak.   Com.   C		l .	1		Thundersquall and hail.	Damage to crops.  High wind blew down trees, tied up traffic, and damaged proper 2 persons injured when a tree fell through their automobile.
Spink, Clark, and Codington Counties, S. Dak.   22   P. m				1,000	Wind and hail Wind	Much damage to crops by hail; small grain blown down.
Spink, Clark, and Codington Counties, S. Dak.   Com. Counties, S. Dak.   Com.   Com.		880		1,000	Heavy rain	Cellars and stores flooded; railroad fill damaged.
Hamden and North Haven, Conn.   22   6 a. m.		ì			Wind and hail	
Hollis, Okla., 8 miles north		1	1		Electrical	metad damaga to barn by lightning
Pymosa, Franklin and Benton, 23		ľ	1	4,000	Small tornado	airplanes damaged.
Pymosa, Franklin and Benton, 23	1	11		11,000	Heavy hail Tornado Rain and hail	\$10,000 crop loss; \$1,000 other damage; path 4 miles long. No damage reported.
Iowa. Richland, Iowa		1	i		Heavy hail	water, at one point to the depth of 3 feet.
Miller, S. Dak., vicinity of 24   9 p. m.				1, 800	Wind	Loss to crops.
Walsenburg (near), Colo 24	1 5–1	¹ 5-10			Haii. Heavy rain	Do. Flooding; railroad bridge and about 850 feet of track washed or
			i	1		damage to highways.
Milwaukee, Wis 24			1		l .	and basements flooded; lawns damaged; boy drowned in creek.

<sup>&</sup>lt;sup>1</sup> Miles instead of yards.

# MONTHLY WEATHER REVIEW

### SEVERE LOCAL STORMS, JULY 1935-Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Adams County, Idaho, north-	25	5 p. m				Wind	Shacks demolished; trees uprooted.
ern portion. Walworth, Edmunds and Hamlin Counties, S. Dak.	25	6–12 p. m				Wind, rain, and hail.	Buildings damaged; standing grain lodged; damage spotted.
necticut River Valley, Conn.	25		i i			cessive rain.	Fourth successive day of rain; considerable damage by lightning; persons in separated sections of State drowned.
Aurora, Ill	25 25				1,000	Electrical Heavy hail	House struck by lightning and burned. Large hallstones; much crop loss.
Mitchell County, Iowa	25 26	P. m.				Haildo	Corn stripped; windows broken. Light to heavy hail along the south shore of Leech Lake caused con
Leech Lake and Fisher, Minn., and vicinity. Lambert, Mont., vicinity of							siderable damage to roots of buildings and to corn; in Fisher about 40 percent of wheat crop damaged; path 25 miles long. Roof of high school picked up and carried some distance where i
							landed on a Catholic Church badly damaging it; a public buildin under construction leveled and 2 garages picked up and scattered about, but cars in them unscratched; farms adjoining town heavily damaged; damage to power plant which was out of order for severa hours.
Crosby, Minn., and vicinity	27	1:45 a. m	880		3,000	Wind	Many windows broken; trees uprooted; Chimneys and poles down slight damage to crops: path 1 mile long.
Salado, Tex	27 27	2 p. m 5:15 p. m	500	0	500 350, 000	Tornado Tornadic winds and	Buildings damaged. Several persons injured; many barns and small outbuildings demol
Utica, Minn., and vicinity	21	8.15 p. m			000,000	excessive rain.	ished, houses unroofed and windows broken; trees uproofed; pole down; much poultry and livestock killed or injured; loss to crops railroad tracks washed out; path 20 miles long.
Strong City, Okla		11 p. m					Some cattle killed; roofs of many houses badly damaged; crop loss tons of large halistones, some as large as hen eggs, washed into can yons and gullies where they were protected from the sun's rays and
Plainview, Minn., and vicinity.	27	P. m				Hail	Light to heavy hail that accompanied a tornado that centered in Utica, caused considerable damage to property and crops.
Globe, Ariz	27			<b>-</b>		Heavy rain	Town hit by rush of water that washed debris and boulders into city streets and delayed transportation on the Miami highway.
Salt River Valley, Ariz	27					Wind, electrical	Many trees broken down; 50 telephone poles broken off; in Buckeyeroof of building torn off and a barn demolished; hall leveled approximately 500 acres of cotton and damaged many acres of freshly-cualifelfa seed; in Phoenix, 2 houses were struck by lightning and
Hillsboro, Ohio	28				10,000	Severe hail and wind	burned.
Lancaster, Ohio	28 28			1	1, 500, 000	Flood	Property damage, \$1,500,000; 1 person drowned.
Buffalo, N. Y. Byers, Colo.	28 29	7:30-7:45 p. m.		0	650 1,000	Thunderstorm Small tornado	2 buildings struck by lightning. Some damage to trees, windmills and buildings.
Bannock and Bear Lake Coun- ties, Idaho.	31	7:30-7:45 p. m. 2 p. m	880		10, 000	Hail	Crop loss; path 8 miles long.
Jeddito, Ariz	31					Torrential rains	Thatcher-Pima district flooded, rail and highway traffic disrupted numerous small houses damaged; portions of city water supply pipeline washed out; loss to crops.
Jefferson and Oldham Counties, Ky.	31				5, 000	Wind	Damage to buildings, timber and wire systems; loss to crops.
Parkersburg, W. Va.	31- Aug. 1	p. m				Severe thunder- storm.	Street cars out of commission at 11 p. m. until noon next day; wire down; streets flooded with from 6 to 18 inches of water; fills under street car and railway tracks washed out; 3,000 telephones out of order; motors stranded and many persons unable to return to their

<sup>&</sup>lt;sup>1</sup> Miles instead of yards

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